

REMARKS

I. Status of the Application

Claims 1-20 are pending in this application. In the April 29, 2005 office action, the Examiner:

A. Rejected claims 1-3, 8-12, 14-17, 19 and 20 under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 4,918,995 to Pearman (hereinafter "Pearman") in view of U.S. Patent No. 6,874,691 to Hildebrand et al. (hereinafter "Hildebrand");

B. Rejected claims 1-3, 8-12, 14-17, 19 and 20 under 35 U.S.C. § 103(a) as allegedly being obvious over Pearman in view of applicant's allegedly admitted prior art (hereinafter "AAPA");

C. Rejected claims 4-7 and 13 under 35 U.S.C. § 103(a) as allegedly being obvious over Pearman in view of Hildebrand further in view of U.S. Patent No. 5,343,758 to Ingrain et al. (hereinafter "Ingrain");

D. Rejected claim 18 under 35 U.S.C. § 103(a) as allegedly being obvious over Pearman in view of Hildebrand further in view of U.S. Patent No. 4,829,449 to Polesnak (hereinafter "Polesnak");

E. Rejected claims 4-7 and 13 under 35 U.S.C. § 103(a) as allegedly being obvious over Pearman in view of AAPA in further view of Ingrain;

F. Rejected claim 18 under 35 U.S.C. § 103(a) as allegedly being obvious over Pearman in view of AAPA further in view of Polesnak.

In this response, applicants respectfully traverse the rejection of claims and request reconsideration in view of the foregoing amendments and the following remarks.

II. The Rejections over Pearman and Hildebrand are in Error

In the April 29, 2005 office action, the Examiner rejected claims 1-3, 8-12, 14-17, 19 and 20 as being allegedly obvious over Pearman in view of Hildebrand. The obviousness rejection over Pearman and Hildebrand also forms the basis of the rejections of claims 4-7, 13 and 18. As will be discussed below, there is no legally sufficient motivation or suggestion to combine Pearman and Hildebrand in the manner proposed by the Examiner. It is therefore respectfully submitted that the obviousness rejections of claims 1-20 over Pearman and Hildebrand (and other references) are in error and should be withdrawn.

A. Claim 1

Claim 1 is directed to a metering arrangement that includes a meter housing, a source of energy signals, a source of gas flow signals, a source of temperature signals, and a processing circuit. The meter housing is securedly supported proximal to a facility receiving utility commodities. The processing circuit is disposed within the meter housing, and is operably connected to the source of energy signals, the source of gas flow signals, and the source of temperature signals. The processing circuit is operable to generate electrical energy consumption metering information from the energy signals. The processing circuit is further operable to generate corrected gas consumption information based on the received gas flow signals and the received temperature signals.

1. Pearman

Pearman is directed to a compact electronic gas meter for measuring usage of natural gas. (Pearman at col. 1, lines 46-48). An object of the Pearman disclosure is to provide a “compact gas meter . . . that is small in size and low in cost so as to enable cost-effective measurement of usage of natural gas by a consumer”. (*Id.* at lines 33-35). The meter includes solid state sensing means, sampling means and means for *only causing output of the sampling means during an active period*. The electronic gas meter is battery powered, and includes low-power consuming elements operated to conserve the battery life. (*Id.* at cols. 2 and 3).

2. Hildebrand

Hildebrand is directed to a building automation system having a plurality of wireless remote devices and a controller, the remote devices including sensors, electronically readable gas or electric meters. The system purportedly allows for monitoring and controlling energy consuming devices from “virtually anywhere in the world”. (Hildebrand at Abstract).

3. The Examiner’s Proposed Combination Regarding Claim 1

Pearman discloses a gas meter, and does not include any elements directed to measuring or metering the consumption of electrical energy. To this end, the Examiner admitted that Pearman fails to teach a processing circuit configured to “generate electrical energy consumption metering information from the energy signals”, as called for in claim

1. (April 29, 2005 office action at p.3). Nevertheless, the Examiner alleges that it would have been obvious to “modify Pearman et al.’s method to include generate electrical energy consumption metering information from the energy signals, as taught by Hildebrand et al., in order that electrical consumption can be measured”. (*Id.*)

Moreover, the Examiner alleges that the Pearman device teaches a source of the energy signals representative of electrical energy received by the facility, as claimed in claim 1. According to the Examiner, the “source of energy signals” is the source of bias power for the Pearman meter itself. (*Id.* at p.2, citing col.6, lines 40-52 and col.7, lines 26-40). Thus, the “energy signals” of Pearman are not *representative* of the electrical energy consumption of the facility being metered, but rather are only “representative” of the electrical energy consumption of the meter itself.

As a consequence, the energy signals from which the claimed “electrical energy consumption metering information” are generated consists *only* of the energy consumed by the meter itself. The Examiner is therefore alleging that one of ordinary skill in the art would modify Pearman to add the function of measuring electrical energy consumption of the meter itself and nothing more.

It is respectfully submitted that one of ordinary skill in the art would not, based on the teachings of Hildebrand *or* otherwise, modify the electronic gas meter of Pearman to measure its own energy consumption.

Even if Hildebrand taught that it is useful to measure electrical consumption of a facility, Hildebrand does not teach placing this functionality in the same housing as a gas meter. Regardless, however, this is not the allegation of the Examiner. The Examiner’s proposed combination results in a modification of Pearman to measure the electrical

energy consumption of an electronic gas meter. Neither Hildebrand nor any other source teaches such functionality, or any advantage of such functionality.

Moreover, such added functionality of the Pearman would be contrary to goals of Pearman, which is to reduce cost and power consumption of an electronic gas meter. In particular, there is no added utility of measuring the electrical power consumption of the Pearman gas meter, yet such a modification would require additional computational power (and bias energy), and requires further circuitry incurring further cost.

Again, it is stressed that the Examiner's allegation is that the source of energy signals in the Pearman meter is the bias energy source for the meter itself. (See portions of cols. 6 and 7 of Pearman cited by the Examiner in page 2 of the April 29, 2005 office action). Because the meter bias signals are the only energy signals available within the Pearman meter, a modification of the Pearman meter to generate electrical energy consumption information based on these signals can only generate information regarding the electrical energy consumption of the meter itself. As discussed above, there is no motivation or suggestion to modify Pearman or any gas meter in this manner.

Moreover, neither Pearman nor Hildebrand alone or in combination suggest the combination of elements of claim 1 in any other manner. For the foregoing reasons, it is respectfully submitted that the obviousness rejection of claim 1 over Pearman and Hildebrand is in error and should be withdrawn.

B. Claims 2-10

As discussed above, the rejections of claims 2-10 also stand rejected as allegedly being obvious over Pearman and Hildebrand (and in some cases additional art). Claims

2-10 depend from and incorporate all of the limitations of claim 1. As discussed above in connection with claim 1, there is no motivation or suggestion to combine Pearman and Hildebrand as proposed by the Examiner. Accordingly, for at least the same reasons as those set forth above in connection with claim 1, it is respectfully submitted that the rejection of claims 2-10 over Pearman and Hildebrand should be withdrawn.

C. Claim 11

Claim 11 is directed to a metering arrangement that includes, among other things that pertain to gas consumption measurement, a source of energy signals representative of electrical energy received by the facility and a processing circuit operable to generate electrical energy consumption metering information from the energy signals. In the rejection of claim 11, the Examiner relies on the same modification of Pearman discussed above in connection with claim 1.

As discussed above, there is no legally sufficient motivation or suggestion to combine Pearman and Hildebrand as proposed. For at least this reason, it is respectfully submitted that the rejection of claim 11 over Pearman and Hildebrand is in error and should be withdrawn.

D. Claims 12-16

As discussed above, the rejections of claims 12-16 also stand rejected as allegedly being obvious over Pearman and Hildebrand (and in some cases additional art). Claims 12-16 depend from and incorporate all of the limitations of claim 11. As discussed above in connection with claim 1, there is no motivation or suggestion to combine Pearman and Hildebrand as proposed by the Examiner. Accordingly, for at least the same reasons as

those set forth above in connection with claim 11, it is respectfully submitted that the rejection of claims 12-16 over Pearman and Hildebrand should be withdrawn.

E. Claim 17

Claim 17 is directed to a method that includes steps of “providing to a processing circuit energy signals representative of electrical energy consumption” and “using the processing circuit generate electrical energy consumption metering information from the energy signals”, as well as other steps related to gas consumption measurement. In the rejection of claim 17, the Examiner relies on the same modification of Pearman discussed above in connection with claim 1. (April 29, 2005 Office Action at p.2)

As discussed above, there is no legally sufficient motivation or suggestion to combine Pearman and Hildebrand as proposed. For at least this reason, it is respectfully submitted that the rejection of claim 17 over Pearman and Hildebrand is in error and should be withdrawn.

F. Claims 18-20

As discussed above, the rejections of claims 18-20 also stand rejected as allegedly being obvious over Pearman and Hildebrand (and in some cases additional art). Claims 18-20 depend from and incorporate all of the limitations of claim 17. As discussed above in connection with claim 1, there is no motivation or suggestion to combine Pearman and Hildebrand as proposed by the Examiner. Accordingly, for at least the same reasons as those set forth above in connection with claim 17, it is respectfully submitted that the rejection of claims 18-20 over Pearman and Hildebrand should be withdrawn.

III. The Rejections over Pearman and Alleged Admitted Prior Art are in Error

In the April 29, 2005 office action, the Examiner rejected claims 1-3, 8-12, 14-17, 19 and 20 as being allegedly obvious over Pearman in view of AAPA. The obviousness rejection over Pearman and AAPA also forms the basis of the rejections of claims 4-7, 13 and 18. As will be discussed below, there is no legally sufficient motivation or suggestion to combine Pearman and AAPA in the manner proposed by the Examiner. It is therefore respectfully submitted that the obviousness rejections of claims 1-20 over Pearman and AAPA (and other references) is in error and should be withdrawn.

A. The Examiner's Proposed Combination Regarding Claim 1

As discussed above, Pearman discloses a gas meter, and does not include any elements directed to measuring or metering the consumption of electrical energy. To this end, the Examiner admitted that Pearman fails to teach a processing circuit configured to "generate electrical energy consumption metering information from the energy signals", as called for in claim 1. (April 29, 2005 office action at p.5). Nevertheless, the Examiner alleges that it would have been obvious to "modify Pearman et al.'s method to include generate electrical energy consumption metering information from the energy signals, as taught by AAPA, in order that electrical consumption can be measured". (*Id.*) Accordingly, the Examiner uses the same modification and motivation in the rejection of Pearman and AAPA as that discussed above in connection with the rejections over Pearman and Hildebrand.

As with Hildebrand, the Examiner appears to cite AAPA as teaching using energy signals to measure electrical energy consumption. Electricity metering is admittedly

known. However, the mere existence of electricity meters does not suggest the claimed combination of elements, and certainly does not suggest a gas meter that measures its own electrical energy consumption.

In particular, as discussed above, the Examiner's allegation is that the source of energy signals in the Pearman meter is the bias energy source for the meter itself. (See portions of cols. 6 and 7 of Pearman cited by the Examiner in page 2 of the April 29, 2005 office action). Because the meter bias signals are the only energy signals available within the Pearman meter, a modification of the Pearman meter to generate electrical energy consumption information based on these signals will result in a gas meter that can only generate information regarding the its own electrical energy consumption. As discussed above, there is no motivation or suggestion to modify Pearman or any gas meter in this manner.

Moreover, neither Pearman nor AAPA alone or in combination suggest the combination of elements of claim 1 in any other manner.

B. Claims 2-10

As discussed above, the rejections of claims 2-10 also stand rejected as allegedly being obvious over Pearman and AAPA (and in some cases additional art). Claims 2-10 depend from and incorporate all of the limitations of claim 1. As discussed above in connection with claim 1, there is no motivation or suggestion to combine Pearman and AAPA as proposed by the Examiner. Accordingly, for at least the same reasons as those set forth above in connection with claim 1, it is respectfully submitted that the rejection of claims 2-10 over Pearman and AAPA should be withdrawn.

C. Claim 11

Claim 11 is directed to a metering arrangement that includes, among other things related to gas consumption measurement, a source of energy signals representative of electrical energy received by the facility and a processing circuit operable to generate electrical energy consumption metering information from the energy signals. In the rejection of claim 11, the Examiner relies on the same modification of Pearman discussed above in connection with claim 1.

As discussed above, there is no legally sufficient motivation or suggestion to combine Pearman and AAPA as proposed. For at least this reason, it is respectfully submitted that the rejections of claim 11 over Pearman and AAPA is in error and should be withdrawn.

D. Claims 12-16

As discussed above, the rejections of claims 12-16 also stand rejected as allegedly being obvious over Pearman and AAPA (and in some cases additional art). Claims 12-16 depend from and incorporate all of the limitations of claim 11. As discussed above in connection with claim 1, there is no motivation or suggestion to combine Pearman and AAPA as proposed by the Examiner. Accordingly, for at least the same reasons as those set forth above in connection with claim 11, it is respectfully submitted that the rejection of claims 12-16 over Pearman and AAPA should be withdrawn.

Claims 12-16 all depend from claim 11, and are therefore allowable for at least the same reasons.

E. Claim 17

Claim 17 is directed to a method that includes steps of “providing to a processing circuit energy signals representative of electrical energy consumption” and “using the processing circuit generate electrical energy consumption metering information from the energy signals”, as well as other steps related to gas consumption measurement. In the rejection of claim 17, the Examiner relies on the same modification of Pearman discussed above in connection with claim 1. (April 29, 2005 Office Action at p.2)

As discussed above, there is no legally sufficient motivation or suggestion to combine Pearman and AAPA as proposed. For at least this reason, it is respectfully submitted that the rejection of claim 17 over Pearman and AAPA is in error and should be withdrawn.

F. Claims 18-20

As discussed above, the rejections of claims 18-20 also stand rejected as allegedly being obvious over Pearman and AAPA (and in some cases additional art). Claims 18-20 depend from and incorporate all of the limitations of claim 17. As discussed above in connection with claim 1, there is no motivation or suggestion to combine Pearman and AAPA as proposed by the Examiner. Accordingly, for at least the same reasons as those set forth above in connection with claim 17, it is respectfully submitted that the rejection of claims 18-20 over Pearman and AAPA should be withdrawn.

IV. Conclusion

For all of the foregoing reasons, it is respectfully submitted the applicants have made a patentable contribution to the art. Favorable reconsideration and allowance of this application is, therefore, respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Harold C. Moore", with a stylized flourish at the end.

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